

| <b>L<br/>Number</b> | <b>Hits</b> | <b>Search Text</b>  | <b>DB</b> | <b>Time stamp</b>   |
|---------------------|-------------|---|-----------|---------------------|
| 1                   | 232         | 360/317.ccls.   | USPAT     | 2003/12/01<br>15:32 |
| 2                   | 25          | klimowicz and 360/317.ccls.   | USPAT     | 2003/12/01<br>15:36 |
| 3                   | 207         | 360/317.ccls. not (klimowicz and<br>360/317.ccls.)  | USPAT     | 2003/12/01<br>15:36 |
| 4                   | 185         | @ad<=20001121 and (360/317.ccls. not<br>(klimowicz and 360/317.ccls.))  | USPAT     | 2003/12/01<br>16:08 |
| 5                   | 3           | ("5555147"   "5661620"   "6034848").PN.   | USPAT     | 2003/12/01<br>15:49 |
| 6                   | 47899       | (mr or mre or DOMR or magneto adj<br>resist\$5 or magnetoresist\$5 or amr or<br>magnetic\$4 adj resist\$5 or gmr\$1 or spin<br>adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or<br>g11b005/39.ipc. or tmr or mram or magnetic<br>adj memory or magnetic adj random adj<br>access adj memory or TJM or macro adj<br>magnetoresist\$5 or macromagnetoresist\$5<br>or piggyback or ((composite or combination<br>or merged) adj4 head\$1))                                      | USPAT     | 2003/12/01<br>16:54 |
| 7                   | 189728      | shield\$3   | USPAT     | 2003/12/01<br>16:57 |
| 8                   | 6507        | ((mr or mre or DOMR or magneto adj<br>resist\$5 or magnetoresist\$5 or amr or<br>magnetic\$4 adj resist\$5 or gmr\$1 or spin<br>adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or<br>g11b005/39.ipc. or tmr or mram or magnetic<br>adj memory or magnetic adj random adj<br>access adj memory or TJM or macro adj<br>magnetoresist\$5 or macromagnetoresist\$5<br>or piggyback or ((composite or combination<br>or merged) adj4 head\$1))) and shield\$3                      | USPAT     | 2003/12/01<br>16:08 |
| 9                   | 2220        | g11b\$.ipc. and (((mr or mre or DOMR or<br>magneto adj resist\$5 or magnetoresist\$5 or<br>amr or magnetic\$4 adj resist\$5 or gmr\$1 or<br>spin adj valve\$1 or svmr\$1 or tjmr\$1 or<br>tmj\$1 or g11b005/39.ipc. or tmr or mram or<br>magnetic adj memory or magnetic adj<br>random adj access adj memory or TJM or<br>macro adj magnetoresist\$5 or<br>macromagnetoresist\$5 or piggyback or<br>((composite or combination or merged) adj4<br>head\$1))) and shield\$3) | USPAT     | 2003/12/01<br>16:12 |

|    |       |  |                   |                  |
|----|-------|--|-------------------|------------------|
| 10 | 0     | @ad<=20001121 and (g11b\$.ipc. and (((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and shield\$3))                          | EPO; JPO; DERWENT | 2003/12/01 16:09 |
| 11 | 0     | @pd<=20001121 and (g11b\$.ipc. and (((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and shield\$3))                          | EPO; JPO; DERWENT | 2003/12/01 16:10 |
| 12 | 9972  | g11b005/127.ipc.   | EPO; JPO; DERWENT | 2003/12/01 16:10 |
| 13 | 10790 | g11b005/39.ipc.  | EPO; JPO; DERWENT | 2003/12/01 16:10 |
| 14 | 20070 | g11b005/127.ipc. or g11b005/39.ipc.  | EPO; JPO; DERWENT | 2003/12/01 16:12 |
| 15 | 0     | (g11b\$.ipc. and (((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and shield\$3)) and (g11b005/127.ipc. or g11b005/39.ipc. ) | EPO; JPO; DERWENT | 2003/12/01 16:11 |
| 16 | 40154 | (mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))  | EPO; JPO; DERWENT | 2003/12/01 16:43 |

|    |        |   |                   |                  |
|----|--------|---|-------------------|------------------|
| 17 | 2662   | shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)))   | EPO; JPO; DERWENT | 2003/12/01 16:11 |
| 18 | 2275   | g11b\$.ipc. and (shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))))   | EPO; JPO; DERWENT | 2003/12/01 16:12 |
| 19 | 2009   | (g11b005/127.ipc. or g11b005/39.ipc. ) and (g11b\$.ipc. and (shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))))                                   | EPO; JPO; DERWENT | 2003/12/01 16:13 |
| 20 | 215921 | thin adj film or shields  | EPO; JPO; DERWENT | 2003/12/01 16:13 |
| 21 | 981    | ((g11b005/127.ipc. or g11b005/39.ipc. ) and (g11b\$.ipc. and (shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)))))) and (thin adj film or shields) | EPO; JPO; DERWENT | 2003/12/01 16:42 |
| 22 | 489    | piggy\$6  | EPO; JPO; DERWENT | 2003/12/01 16:42 |

|    |     |   |                   |                  |
|----|-----|---|-------------------|------------------|
| 23 | 223 | ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and piggy\$6  | EPO; JPO; DERWENT | 2003/12/01 16:43 |
| 24 | 222 | ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and piggy\$6) not (((g11b005/127.ipc. or g11b005/39.ipc. ) and (g11b\$.ipc. and (shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)))))) and (thin adj film or shields)) | EPO; JPO; DERWENT | 2003/12/01 16:43 |

|    |     |   |                   |                  |
|----|-----|---|-------------------|------------------|
| 25 | 19  | (((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))) and piggy\$6) not (((g11b005/127.ipc. or g11b005/39.ipc. ) and (g11b\$.ipc. and (shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)))))) and (thin adj film or shields))) and g11b\$.ipc. | EPO; JPO; DERWENT | 2003/12/01 16:46 |
| 26 | 370 | piggyback and 360/\$.ccls.  | USPAT; US-PGPUB   | 2003/12/01 16:53 |
| 27 | 11  | piggyback   | IBM_TDB           | 2003/12/01 16:53 |
| 28 | 769 | (mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1))   | IBM_TDB           | 2003/12/01 16:54 |
| 29 | 73  | shield\$3 and ((mr or mre or DOMR or magneto adj resist\$5 or magnetoresist\$5 or amr or magnetic\$4 adj resist\$5 or gmr\$1 or spin adj valve\$1 or svmr\$1 or tjmr\$1 or tmj\$1 or g11b005/39.ipc. or tmr or mram or magnetic adj memory or magnetic adj random adj access adj memory or TJM or macro adj magnetoresist\$5 or macromagnetoresist\$5 or piggyback or ((composite or combination or merged) adj4 head\$1)))   | IBM_TDB           | 2003/12/01 16:54 |